

OCD Hobbs

14-440

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

HOBBS OCD

SEP 17 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

RECEIVED

1a. Type of Work: ☒ DRILL ☐ REENTER		5. Lease Serial No. SHL: NMNM0160973 UL "F": NMNM067998 BHL: NMNM059398	
1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name ---	
2. Name of Operator BTA OIL PRODUCERS, LLC		7. If Unit or CA Agreement, Name and No. N/A	
3a. Address 104 S Pecox Midland, TX 79701		8. Lease Name and Well No. <313714> 8115 JV-P Mesa B Com #5H	
3b. Phone No. (include area code) 432-853-2185		9. API Well No. 30-025- 42128	
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface 190' FSL & 330' FWL Lot #4 (SWSW) SHL Sec 7-T26S-R33E At proposed prod. Zone 330' FNL & 380' FWL Lot #1 (NWNW) BHL Sec 7-T26S-R33E		10. Field and Pool, or Exploratory WC-025 G-00 5253329D; UPPER AS 197794	
14. Distance in miles and direction from nearest town or post office* Approximately 23 miles from Jal		11. Sec., T.R.M. or Bk and Survey or Area Section 7 - T26S - R33E	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. Unit line, if any) 190'		12. County or Parish Lea County	
16. No. of acres in lease SHL: 1238.72 UL "F": 79.33 BHL: 79.31		13. State NM	
17. Spacing Unit dedicated to this well 157.36 160		18. Distance from location* to nearest well, drilling, completed, applied for, on this lease, ft. SHL: 1550' (Mesa B #4H) BHL: 1832'	
19. Proposed Depth 9685' TVD: 9655' MD: 14243'		20. BLM/BIA Bond No. on file NM1195 & NMB000849	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3227.9' GL		22. Approximate date work will start* ASAP	
23. Estimated duration 30 days			

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

- | | |
|---|--|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the authorized officer. |

25. Signature <i>Pam Inskeep</i>	Name (Printed/Typed) Pam Inskeep	Date 1/10/2014
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Title

Regulatory Administrator

Approved by (Signature) Steve Caffey	Name (Printed/Typed)	Date SEP 11 2014
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

SEP 18 2014

KZ
09/18/14
P.M.

Surface Use Plan
BTA Oil Producers, LLC
8115 JV-P Mesa B Com #5H
SL: 190' FSL & 330' FWL Lot #4
Section 7, T26S, R33E
BHL: 330' FNL & 380' FWL Lot #1
Section 7, T26S, R33E
Lea County, New Mexico

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SEP 17 2014

RECEIVED

OPERATOR CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or BTA Oil Producers, LLC, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed this 10th day of January, 2014.

Signed: Pam Inskeep

Printed Name: Pam Inskeep
Position: Regulatory Administrator
Address: 104 S Pecos, Midland, TX 79701
Telephone: (432) 682-3753
Field Representative Nick Eaton, Drilling Manager
E-mail: pinskeep@btaoil.com

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

HOBBS OCD

SEP 17 2014

RECEIVED

BTA Oil Producers, LLC
DRILLING AND OPERATIONS PROGRAM
8115 JV-P MESA B COM #5H
SHL: 190' FSL & 330' FWL
BHL: 330' FNL & 380' FWL
Section 7 T26S R33E
Lea County, New Mexico

In conjunction with Form 3160-3, Application for Permit to Drill subject well, BTA Oil Producers, LLC submits the following eleven items of pertinent information in accordance with BLM requirements.

1. Geological surface formation: Permian
2. The estimated tops of geologic markers & estimated depths at which anticipated water, oil or gas formations are expected to be encountered are as follows:

Fresh Water	~ 157'
Rustler	770'
Top of Salt	1,834'
Fletcher Anhydrite	4,521'
Delaware	4,689' Oil
Bone Spring	8,910' Oil
Wolfcamp	11,979'
TD TVD	9,655'
TD MD	14,243'

No other formations are expected to give up oil, gas or fresh water in measurable quantities. The surface fresh water sands will be protected by setting 13-3/8" casing at ~~800'~~ ^{820'} and circulating cement back to surface. All intervals will be isolated by setting 5 1/2" casing to total depth and tying back cement to a minimum of 500' into 9-5/8" csg shoe.

3. Proposed Casing Program: All casing is new and API approved

Hole Size	Depths	Section	OD Casing	New/Used	Wt	Collar	Grade	Collapse Design Factor	Burst Design Factor	Tension Design Factor
17 1/2"	0' - 800' ^{820'}	Surface	13 3/8"	New	54.5#	STC	J-55	2.05	2.18	8.67
12 1/4"	0' - 4,300'	Intrmd	9 5/8"	New	40#	LTC	J-55	1.149	1.91	3.57
12 1/4"	4,300' - 4,700'	Intrmd	9 5/8"	New	40#	LTC	N-80	1.15	2.79	4.14
8 3/4"	0' - 14,243'	Production Curve & Lateral	5 1/2"	New	17#	LTC	P-110	1.49	1.33	2.9

- While running all casing strings, the pipe will be kept a minimum of 1/3 full at all times to avoid approaching the collapse pressure of casing.

4. Proposed Cement Program

- a. 13-3/8" Surface
Lead: 325 sx Class C + 4% Gel + 2% CaCl₂
(13.5 ppg, 1.75 cuft/sx, 9.2 gal/sx)
Tail: 250 sx Class C + 2% CaCl₂
(14.8 ppg, 1.34 cuft/sx, 6.37 gal/sx)
**Calculated w/50% excess on OH volumes
- b. 9 5/8" Intermediate:
Lead: 875 sx HLC Blend
(12.7 ppg, 1.89 cuft/sx, 10.3 gal/sx)
Tail: 250 sx Class C
(14.8 ppg, 1.34 cuft/sx, 6.36 gal/sx)
**Calculated w/35% excess on OH volumes
- d. 5 1/2" Production
Stage 1:
Lead: 300 sx 35:65:6 H Blend
(12.7 ppg, 1.89 cuft/sx, 10.47 gal/sx)
Tail: 950 sx 50:50:2 H +Salt+GasStop +CFR-3
(14.4 ppg, 1.25 cuft/sx, 5.51 gal/sx)
**Calculated w/35% excess on OH volumes
DVT @ 6900'
Stage 2:
Lead: 225 sx 50:50:10 Blend
(11.9 ppg, 2.5 cuft/sx, 13.78 gal/sx)
Tail: 100 sx Class C Neat
(14.8 ppg, 1.34 cuft/sx, 6.34 gal/sx)
**Calculated w/35% excess on OH volumes

- The above cement volumes could be revised pending the caliper measurements.
- The 13-3/8" surface cement is designed to circulate to surface.
- The 9-5/8" intermediate cement is designed to circulate to surface.
- The production TOC will tie back a minimum 500' into previous shoe.

5. Minimum Specifications for Pressure Control:

A 13 5/8" 2000 psi Hydril type annular preventer with mud cross, choke manifold, chokes, kill line, Kelly cock, safety valve and subs to fit all drill strings in use as provided for in Onshore Order #2 will be nipped up on the 13 3/8" x 2000 psi SOW X 13 5/8" x 2000 psi casing head (see attached BOPE drawings). This unit will be hydraulically operated and will be tested by independent tester using test plug to 250 psig/300 psig low and 1000 psig high. Choke line valve, chokes, upper Kelly cock valve, safety valve shall also be tested to 250 psig/300 psig low and 2000 psig high by independent tester.

After setting the 9 5/8" intermediate casing the following BOPE as provided for in Onshore Order #2 will be rigged up on the 9 5/8" intermediate casing spool (13 5/8" 2000 psi x 13 5/8" 3000 psi): 13 5/8" X 3000 psi annular, 13 5/8" X 3000 psi double ram type preventer with blind rams on top and 4 1/2" drill pipe rams on the bottom, choke, mud cross, choke manifold, 4" diameter choke line, 2" kill line, kelly cock, safety valve with proper subs for all drill string connections in use (see attached BOPE drawings). The BOPE including auxiliary equipment (chokes, choke manifold etc.) will be tested by independent tester.

Test plug will be used and all BOPE tested to 250 psig/ 300 psig low pressure and 3000 psig high pressure for 10 minutes. Annular preventer will be tested to 1500 psig. BOP stack will be used continuously until total depth is reached. Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Any time a component of the BOP stack or choke manifold is changed or installed BOPE will be re-tested as required.

All casing strings below the conductor shall be pressure tested to 0.22 psi per foot of casing string depth or 1500 psig, whichever is greater, but not to exceed 70 percent of casing's minimum internal yield. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

A remotely operated choke will be installed before drilling out intermediate shoe. If H₂S is monitored with 100 ppm in the gas stream while drilling intermediate, we will shut in and install a remote operated choke.

6. Estimated BHP & BHT:

Lateral TD = 4,619 psi

Lateral TD = 152°F

7. Mud Program: The applicable depths and properties of this system are as follows:

Depth	Type System	Mud Weight	Viscosity (sec)	Waterloss (cc)
0' – 800' 820'	Fresh Water	8.4 – 8.6	29	N.C.
800' – 4,700'	Brine	9.9 – 10.1	29	N.C.
4,700' – 14,243' (Lateral)	Cut Brine	8.9 – 9.2	29	N.C.

- The necessary mud products for weight addition and fluid loss control will be on location at all times.
- A visual and electronic mud monitoring system will be rigged up prior to spud to detect changes in the volume of mud system. The electronic system consists of a pit volume totalizer, stroke counter and flow sensor at flow line.
- If weight and/or viscosity are introduced to the mud system a daily mud check will be performed by mud contractor, along with tourly check by rig personnel.
- After setting intermediate casing, a third party gas unit detection system will be installed at the flow line.

8. Auxiliary Well Control and Monitoring Equipment:

- A Kelly cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling out the 13 3/8" casing shoe until the 5 1/2" casing is cemented. Breathing equipment will be on location upon drilling the 13 3/8" shoe until total depth is reached.

9. Testing, Logging and Coring Program:

- Drill stem tests will be based on geological sample shows.
- If open hole electrical logging is performed, the program will be:

- i. Total Depth to Intermediate Casing: Dual Laterolog-Micro Laterolog and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
- ii. Total Depth to Surface: Compensated Neutron with Gamma Ray
- iii. No coring program is planned
- iv. Additional testing will be initiated subsequent to setting the 5 1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

10. Potential Hazards:

- a. No abnormal pressures or temperatures are expected. There is no known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. No H₂S is anticipated to be encountered.

11. Anticipated starting date and Duration of Operations:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon as possible after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 30 days.

BTA Oil Producers, LLC

Lea County, NM

8115 JV-P Mesa B *com*

5H

OH

Plan: Design #1

Standard Planning Report

17 December, 2013

Nexus Directional Solutions, LP

Planning Report

Database: EDM 5000.1 Single User Db
Company: BTA Oil Producers, LLC
Project: Lea County, NM
Site: 8115 JV-P Mesa B (QW)
Well: 5H
Wellbore: OH
Design: Design #1

Local Co-ordinate Reference: Well 5H
TVD Reference: WELL @ 3245.9usft (Original Well Elev)
MD Reference: WELL @ 3245.9usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	8115 JV-P Mesa B					
Site Position:			Northing:	0.00 usft	Latitude:	30° 59' 24.512 N
From:	Map		Easting:	0.00 usft	Longitude:	105° 55' 44.137 W
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.82 °
Well	5H					
Well Position	+N/-S	383,076.7 usft	Northing:	383,076.70 usft	Latitude:	32° 3' 4.234 N
	+E/-W	721,543.2 usft	Easting:	721,543.20 usft	Longitude:	103° 37' 5.795 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	3,227.9 usft
Wellbore	OH					

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	11/26/2013	7.29	59.96	48,263

Design	Design #1				
Audit Notes:					
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0	
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)	
	0.0	0.0	0.0	0.23	

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,207.4	0.00	0.00	9,207.4	0.0	0.0	0.00	0.00	0.00	0.00	
9,961.0	90.40	5.00	9,685.0	479.1	41.9	12.00	12.00	0.00	5.00	
10,234.9	90.40	359.52	9,683.1	752.7	52.7	2.00	0.00	-2.00	-89.97	
14,242.6	90.40	359.52	9,655.0	4,760.2	19.2	0.00	0.00	0.00	0.00	8115 JV-P Mesa B #5

Nexus Directional Solutions, LP

Planning Report

Database: EDM 5000.1 Single User Db
 Company: BTA Oil Producers, LLC
 Project: Lea County, NM
 Site: 8115 JV-P Mesa B (C-7A)
 Well: 5H
 Wellbore: OH
 Design: Design #1

Local Co-ordinate Reference: Well 5H
 TVD Reference: WELL @ 3245.9usft (Original Well Elev)
 MD Reference: WELL @ 3245.9usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

Nexus Directional Solutions, LP

Planning Report

Database: EDM 5000.1 Single User Db
 Company: BTA Oil Producers, LLC
 Project: Lea County, NM
 Site: 8115 JV-P Mesa B *CAN*
 Well: 5H
 Wellbore: OH
 Design: Design #1

Local Co-ordinate Reference: Well 5H
 TVD Reference: WELL @ 3245.9usft (Original Well Elev)
 MD Reference: WELL @ 3245.9usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,207.4	0.00	0.00	9,207.4	0.0	0.0	0.0	0.00	0.00	0.00
KOP - 9207.4 'MD, 0.00° INC, 0.00° AZ									
9,225.0	2.11	5.00	9,225.0	0.3	0.0	0.3	12.00	12.00	0.00
9,250.0	5.11	5.00	9,249.9	1.9	0.2	1.9	12.00	12.00	0.00
9,275.0	8.11	5.00	9,274.8	4.8	0.4	4.8	12.00	12.00	0.00
9,300.0	11.11	5.00	9,299.4	8.9	0.8	8.9	12.00	12.00	0.00
9,325.0	14.11	5.00	9,323.8	14.4	1.3	14.4	12.00	12.00	0.00
9,350.0	17.11	5.00	9,347.9	21.0	1.8	21.1	12.00	12.00	0.00
9,375.0	20.11	5.00	9,371.6	29.0	2.5	29.0	12.00	12.00	0.00
9,400.0	23.10	5.00	9,394.8	38.2	3.3	38.2	12.00	12.00	0.00
9,425.0	26.10	5.00	9,417.5	48.5	4.2	48.5	12.00	12.00	0.00
9,450.0	29.10	5.00	9,439.7	60.1	5.3	60.1	12.00	12.00	0.00
9,475.0	32.10	5.00	9,461.2	72.7	6.4	72.8	12.00	12.00	0.00
9,500.0	35.10	5.00	9,482.0	86.5	7.6	86.6	12.00	12.00	0.00
9,525.0	38.10	5.00	9,502.1	101.4	8.9	101.4	12.00	12.00	0.00

Nexus Directional Solutions, LP

Planning Report

Database: EDM 5000.1 Single User Db
 Company: BTA Oil Producers, LLC
 Project: Lea County, NM
 Site: 8115 JV-P Mesa B *lan*
 Well: 5H
 Wellbore: OH
 Design: Design #1

Local Co-ordinate Reference: Well 5H
 TVD Reference: WELL @ 3245.9usft (Original Well Elev)
 MD Reference: WELL @ 3245.9usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,550.0	41.10	5.00	9,521.4	117.2	10.3	117.3	12.00	12.00	0.00
9,575.0	44.10	5.00	9,539.8	134.1	11.7	134.2	12.00	12.00	0.00
9,600.0	47.10	5.00	9,557.3	151.9	13.3	151.9	12.00	12.00	0.00
9,625.0	50.10	5.00	9,573.8	170.6	14.9	170.6	12.00	12.00	0.00
9,650.0	53.10	5.00	9,589.3	190.1	16.6	190.2	12.00	12.00	0.00
9,675.0	56.09	5.00	9,603.8	210.4	18.4	210.5	12.00	12.00	0.00
9,700.0	59.09	5.00	9,617.2	231.4	20.2	231.5	12.00	12.00	0.00
9,725.0	62.09	5.00	9,629.5	253.1	22.1	253.2	12.00	12.00	0.00
9,750.0	65.09	5.00	9,640.6	275.4	24.1	275.5	12.00	12.00	0.00
9,775.0	68.09	5.00	9,650.5	298.3	26.1	298.4	12.00	12.00	0.00
9,800.0	71.09	5.00	9,659.2	321.6	28.1	321.7	12.00	12.00	0.00
9,825.0	74.09	5.00	9,666.7	345.4	30.2	345.5	12.00	12.00	0.00
9,850.0	77.09	5.00	9,672.9	369.5	32.3	369.6	12.00	12.00	0.00
9,875.0	80.09	5.00	9,677.9	393.9	34.5	394.0	12.00	12.00	0.00
9,900.0	83.09	5.00	9,681.5	418.5	36.6	418.7	12.00	12.00	0.00
9,925.0	86.09	5.00	9,683.9	443.3	38.8	443.5	12.00	12.00	0.00
9,950.0	89.08	5.00	9,685.0	468.2	41.0	468.4	12.00	12.00	0.00
9,961.0	90.40	5.00	9,685.0	479.1	41.9	479.3	12.00	12.00	0.00
EOC- 9961.0 'MD, 90.40° INC, 5.00° AZI									
10,000.0	90.40	4.22	9,684.7	518.0	45.1	518.2	2.00	0.00	-2.00
10,100.0	90.40	2.22	9,684.0	617.9	50.7	618.1	2.00	0.00	-2.00
10,200.0	90.40	0.22	9,683.3	717.8	52.8	718.0	2.00	0.00	-2.00
10,234.9	90.40	359.52	9,683.1	752.7	52.7	753.0	2.00	0.00	-2.00
10,300.0	90.40	359.52	9,682.6	817.8	52.2	818.0	0.00	0.00	0.00
10,400.0	90.40	359.52	9,681.9	917.8	51.3	918.0	0.00	0.00	0.00
10,500.0	90.40	359.52	9,681.2	1,017.8	50.5	1,018.0	0.00	0.00	0.00
10,600.0	90.40	359.52	9,680.5	1,117.8	49.7	1,118.0	0.00	0.00	0.00
10,700.0	90.40	359.52	9,679.8	1,217.8	48.8	1,218.0	0.00	0.00	0.00
10,800.0	90.40	359.52	9,679.1	1,317.8	48.0	1,318.0	0.00	0.00	0.00
10,900.0	90.40	359.52	9,678.4	1,417.8	47.2	1,418.0	0.00	0.00	0.00
11,000.0	90.40	359.52	9,677.7	1,517.8	46.3	1,518.0	0.00	0.00	0.00
11,100.0	90.40	359.52	9,677.0	1,617.8	45.5	1,617.9	0.00	0.00	0.00
11,200.0	90.40	359.52	9,676.3	1,717.8	44.6	1,717.9	0.00	0.00	0.00
11,300.0	90.40	359.52	9,675.6	1,817.8	43.8	1,817.9	0.00	0.00	0.00
11,400.0	90.40	359.52	9,674.9	1,917.8	43.0	1,917.9	0.00	0.00	0.00
11,500.0	90.40	359.52	9,674.2	2,017.8	42.1	2,017.9	0.00	0.00	0.00
11,600.0	90.40	359.52	9,673.5	2,117.7	41.3	2,117.9	0.00	0.00	0.00
11,700.0	90.40	359.52	9,672.8	2,217.7	40.5	2,217.9	0.00	0.00	0.00
11,800.0	90.40	359.52	9,672.1	2,317.7	39.6	2,317.9	0.00	0.00	0.00
11,900.0	90.40	359.52	9,671.4	2,417.7	38.8	2,417.9	0.00	0.00	0.00
12,000.0	90.40	359.52	9,670.7	2,517.7	38.0	2,517.9	0.00	0.00	0.00
12,100.0	90.40	359.52	9,670.0	2,617.7	37.1	2,617.8	0.00	0.00	0.00
12,200.0	90.40	359.52	9,669.3	2,717.7	36.3	2,717.8	0.00	0.00	0.00
12,300.0	90.40	359.52	9,668.6	2,817.7	35.4	2,817.8	0.00	0.00	0.00
12,400.0	90.40	359.52	9,667.9	2,917.7	34.6	2,917.8	0.00	0.00	0.00
12,500.0	90.40	359.52	9,667.2	3,017.7	33.8	3,017.8	0.00	0.00	0.00
12,600.0	90.40	359.52	9,666.5	3,117.7	32.9	3,117.8	0.00	0.00	0.00
12,700.0	90.40	359.52	9,665.8	3,217.7	32.1	3,217.8	0.00	0.00	0.00
12,800.0	90.40	359.52	9,665.1	3,317.7	31.3	3,317.8	0.00	0.00	0.00
12,900.0	90.40	359.52	9,664.4	3,417.7	30.4	3,417.8	0.00	0.00	0.00
13,000.0	90.40	359.52	9,663.7	3,517.7	29.6	3,517.8	0.00	0.00	0.00
13,100.0	90.40	359.52	9,663.0	3,617.7	28.8	3,617.7	0.00	0.00	0.00
13,200.0	90.40	359.52	9,662.3	3,717.7	27.9	3,717.7	0.00	0.00	0.00
13,300.0	90.40	359.52	9,661.6	3,817.6	27.1	3,817.7	0.00	0.00	0.00

Nexus Directional Solutions, LP

Planning Report

Database: EDM 5000.1 Single User Db
 Company: BTA Oil Producers, LLC
 Project: Lea County, NM
 Site: 8115 JV-P Mesa B (copy)
 Well: 5H
 Wellbore: OH
 Design: Design #1

Local Co-ordinate Reference: Well 5H
 TVD Reference: WELL @ 3245.9usft (Original Well Elev)
 MD Reference: WELL @ 3245.9usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,400.0	90.40	359.52	9,660.9	3,917.6	26.2	3,917.7	0.00	0.00	0.00
13,500.0	90.40	359.52	9,660.2	4,017.6	25.4	4,017.7	0.00	0.00	0.00
13,600.0	90.40	359.52	9,659.5	4,117.6	24.6	4,117.7	0.00	0.00	0.00
13,700.0	90.40	359.52	9,658.8	4,217.6	23.7	4,217.7	0.00	0.00	0.00
13,800.0	90.40	359.52	9,658.1	4,317.6	22.9	4,317.7	0.00	0.00	0.00
13,900.0	90.40	359.52	9,657.4	4,417.6	22.1	4,417.7	0.00	0.00	0.00
14,000.0	90.40	359.52	9,656.7	4,517.6	21.2	4,517.7	0.00	0.00	0.00
14,100.0	90.40	359.52	9,656.0	4,617.6	20.4	4,617.6	0.00	0.00	0.00
14,200.0	90.40	359.52	9,655.3	4,717.6	19.6	4,717.6	0.00	0.00	0.00
14,242.6	90.40	359.52	9,655.0	4,760.2	19.2	4,760.2	0.00	0.00	0.00

TD at 14242.6 - 8115 JV-P Mesa B #5H (copy)

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
-hit/miss target									
- Shape									
8115 JV-P Mesa B #5H	0.00	0.00	9,655.0	4,760.2	19.2	387,836.90	721,562.40	32° 3' 51.339 N	103° 37' 5.205 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
9,207.4	9,207.4	0.0	0.0	KOP - 9207.4 'MD, 0.00° INC, 0.00° AZI
9,961.0	9,685.0	479.1	41.9	EOC- 9961.0 'MD, 90.40° INC, 5.00° AZI
14,242.6	9,655.0	4,760.2	19.2	TD at 14242.6



NEXUS

DIRECTIONAL SOLUTIONS, L.P.

8115 JV-P Mesa B (copy) 5H
Lea County, NM
Northing: (Y) 383076.70
Easting: (X) 721543.20
Design #1

WELL DETAILS:

WELL @ 3245.9usft (Original Well Elev)

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.0	0.0	383076.70	721543.20	32° 3' 4.234 N	103° 37' 5.795 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Deg	TFace	VSect	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
9207.4	0.00	0.00	9207.4	0.0	0.0	0.00	0.00	0.0	
9961.0	90.40	5.00	9685.0	479.1	41.9	12.00	5.00	479.3	
10234.9	90.40	359.52	9683.1	752.7	52.7	2.00	-89.97	753.0	
14242.6	90.40	359.52	9655.0	4760.2	19.2	0.00	0.00	4760.2	8115 JV-P Mesa B #5H (copy)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting
8115 JV-P Mesa B #5H (copy)	9655.0	4760.2	19.2	387836.90	721562.40

LEGEND

-- Design #1



Azimuths to Grid North
True North: -0.38°
Magnetic North: 5.91°

Magnetic Field
Strength: 48263.5nT
Dip Angle: 59.95°
Date: 11/26/2013
Model: IGRF2010

Map Sheet:
11-27, December 17, 2013
Nexus Directional Solutions
3025 CR 1785
Oriskany TX 79765

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

Local Origin: Well 5H, Grid North

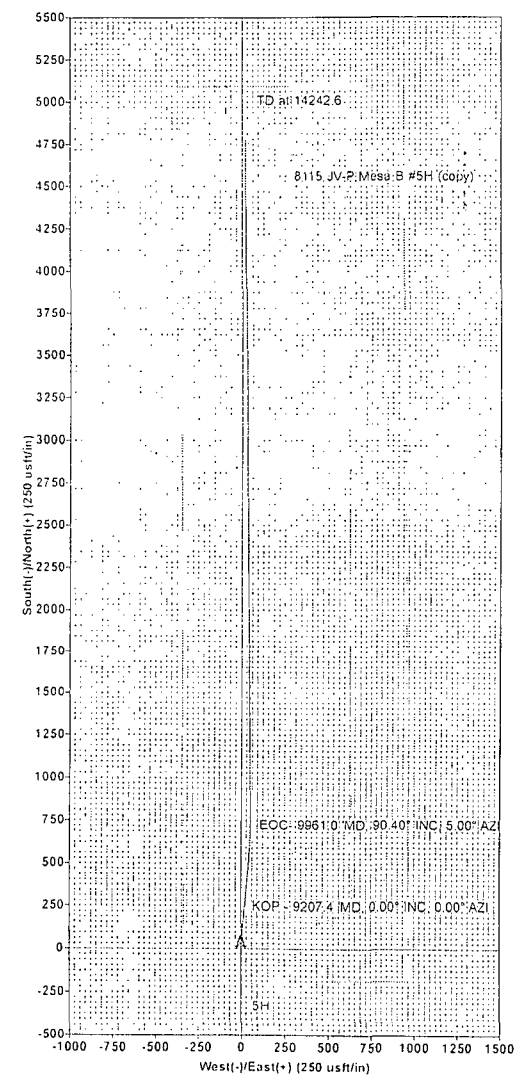
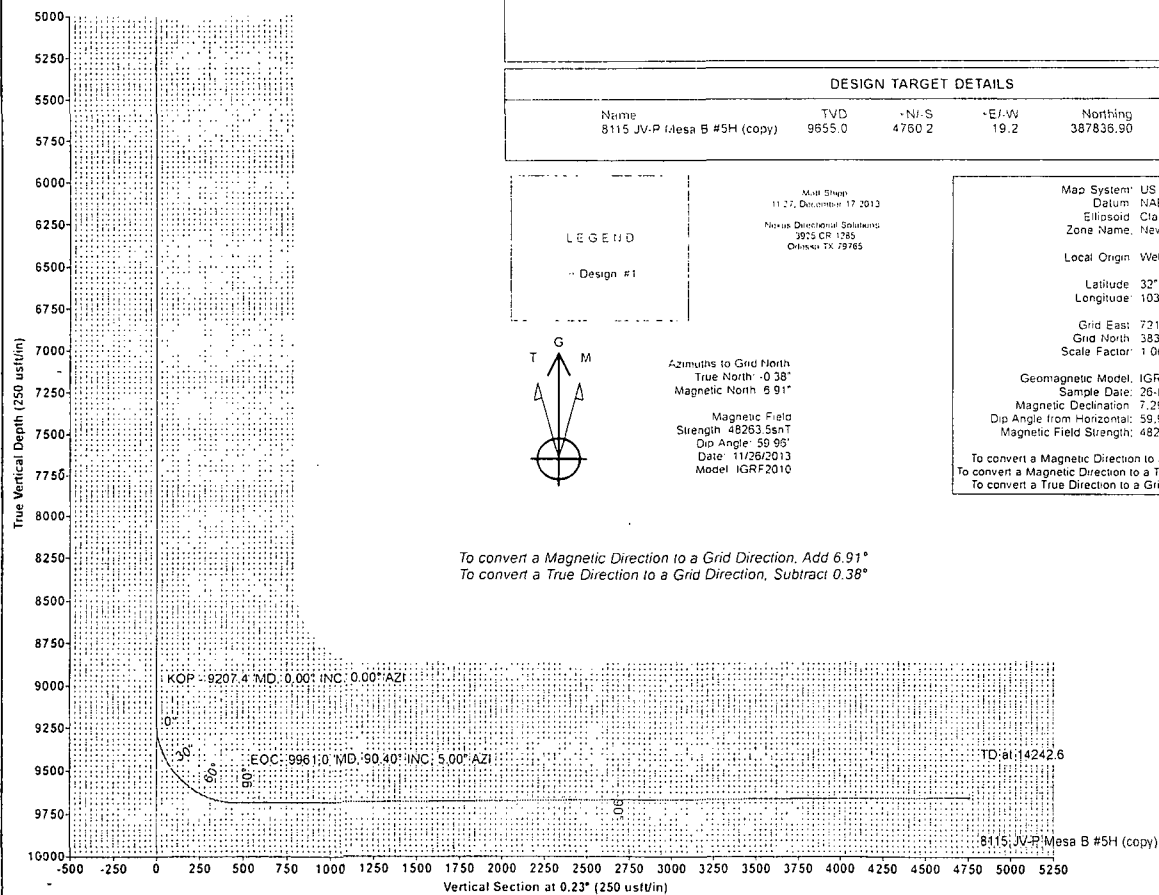
Latitude: 32° 3' 4.234 N
Longitude: 103° 37' 5.795 W

Grid East: 721543.20
Grid North: 383076.70
Scale Factor: 1.000

Geomagnetic Model: IGRF2010
Sample Date: 26-Nov-13
Magnetic Declination: 7.29°
Dip Angle from Horizontal: 59.95°
Magnetic Field Strength: 48263

To convert a Magnetic Direction to a Grid Direction, Add 6.91°
To convert a Magnetic Direction to a True Direction, Add 7.29° East
To convert a True Direction to a Grid Direction, Subtract 0.38°

To convert a Magnetic Direction to a Grid Direction, Add 6.91°
To convert a True Direction to a Grid Direction, Subtract 0.38°





New Mexico Office of the State Engineer **Water Column/Average Depth to Water**

No records found.

PLSS Search:

Section(s): 7

Township: 26S

Range: 33E

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.



New Mexico Office of the State Engineer

Water Column/Average Depth to Water

(A CLW##### in the
POD suffix indicates the
POD has been replaced
& no longer serves a
water right file.)

(R=POD has
been replaced,
O=orphaned,

C=the file is
closed)

(quarters are 1=NW 2=NE 3=SW 4=SE)

(quarters are smallest to largest) (NAD83 UTM in meters)

(In feet)

POD Number	POD	Sub-Code	basin	County	Q 64	Q 16	Q 4	Sec	Tws	Rng	X	Y	Depth Well	Depth Water	Water Column
C 02270		C	LE		1	1	2	27	26S	33E	636063	3543722	150	125	25
C 02273			LE			1	2	21	26S	33E	634549	3545134*	160	120	40
C 02285 POD1		C	LE		1	4	4	03	26S	33E	636613	3548855	220	220	0
C 02286		CUB	LE		3	4	4	03	26S	33E	636470	3548714	220	175	45
C 02287		CUB	LE		3	4	4	03	26S	33E	636427	3548708	220		
C 02288		CUB	LE		4	4	4	03	26S	33E	636646	3548758	220	180	40
C 02289		CUB	LE		4	4	4	03	26S	33E	636612	3548675*	200	160	40
C 02290		CUB	LE		4	4	4	03	26S	33E	636538	3548770	200	160	40
C 02293		CUB	LE		2	2	1	14	26S	33E	637501	3546975	200	135	65
C 02294		CUB	LE		4	4	3	11	26S	33E	637465	3547003	200	145	55
C 02295		CUB	LE		2	2	4	12	26S	33E	639850	3547710*	250	200	50
C 03577 POD1		C	LE		3	3	3	22	26S	33E	636010	3543771	750	110	640
C 03596 POD1		C	LE		3	3	4	22	26S	33E	636017	3543756	225		

Average Depth to Water: 157 feet

Minimum Depth: 110 feet

Maximum Depth: 220 feet

Record Count: 13

PLSS Search:

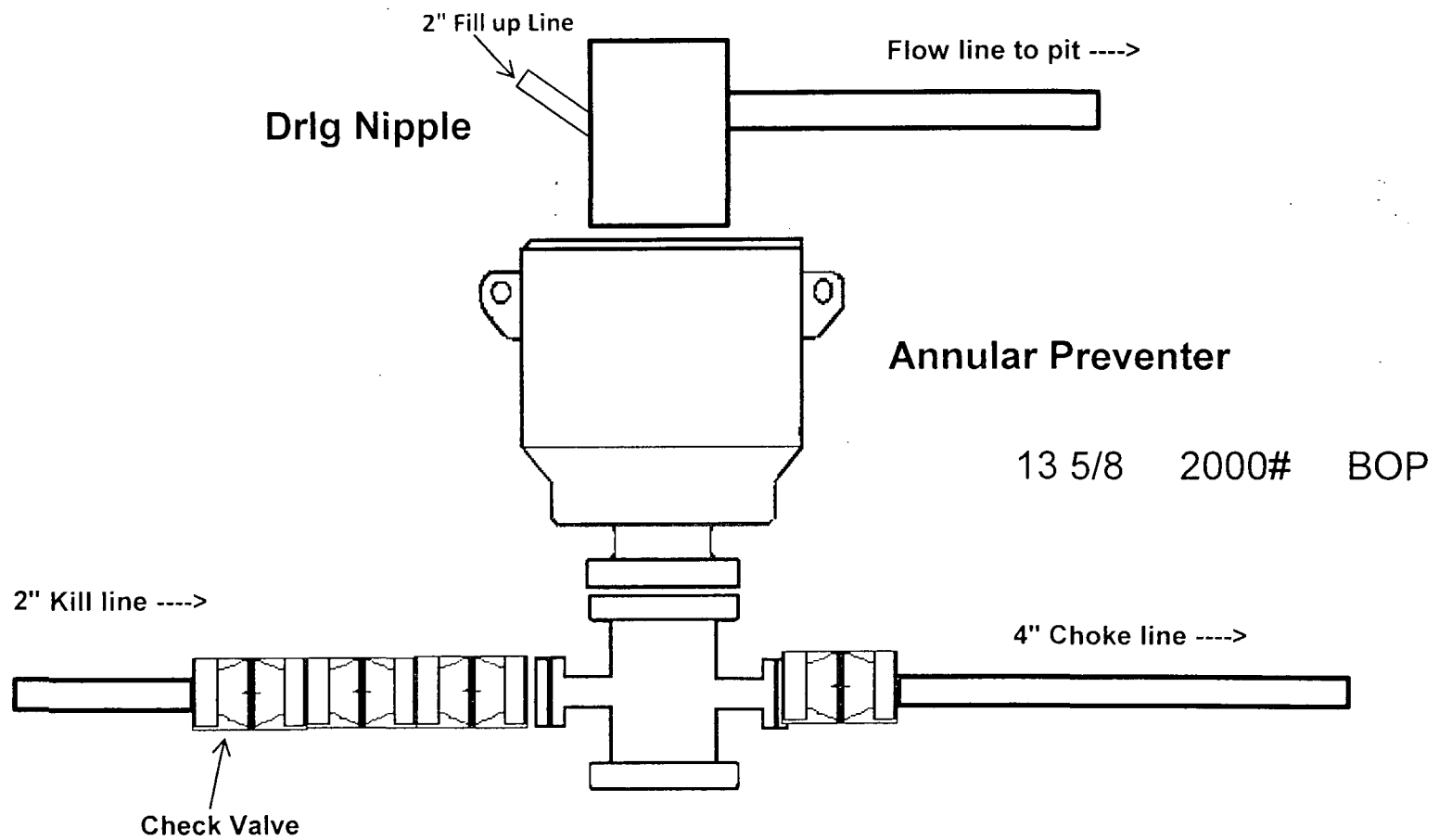
Township: 26S

Range: 33E

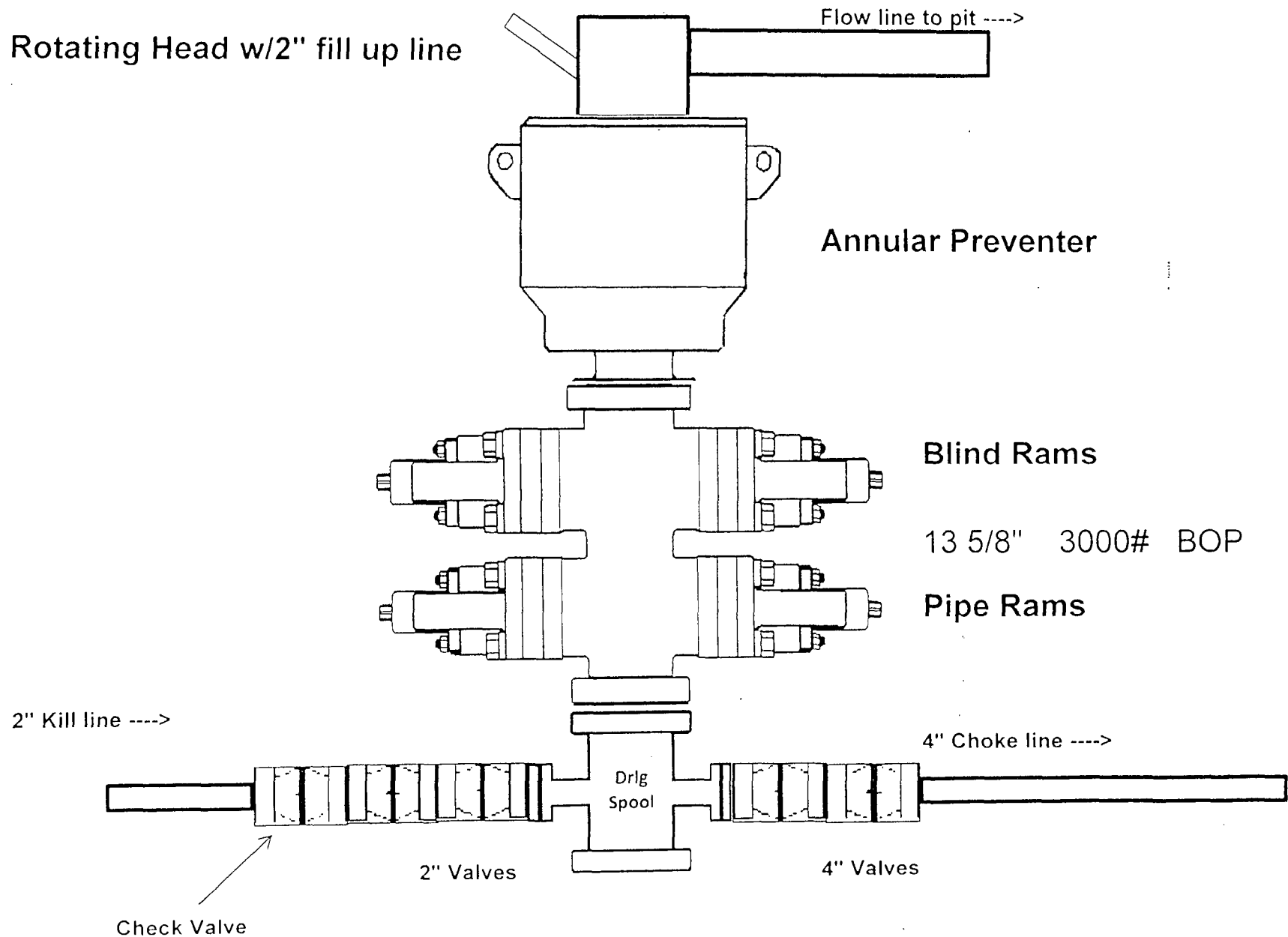
*UTM location was derived from PLSS - see Help

The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

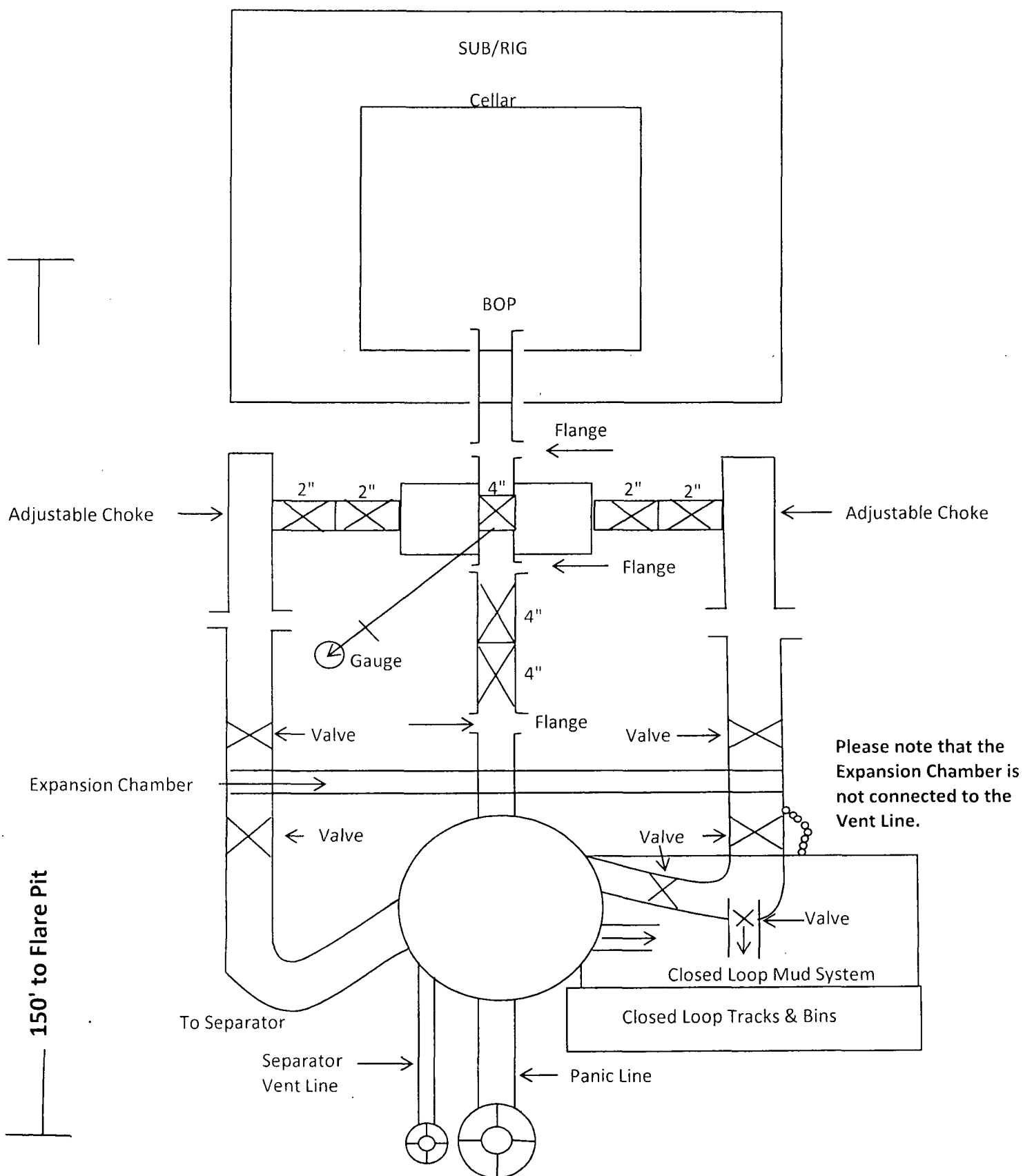
2,000 psi BOP Schematic



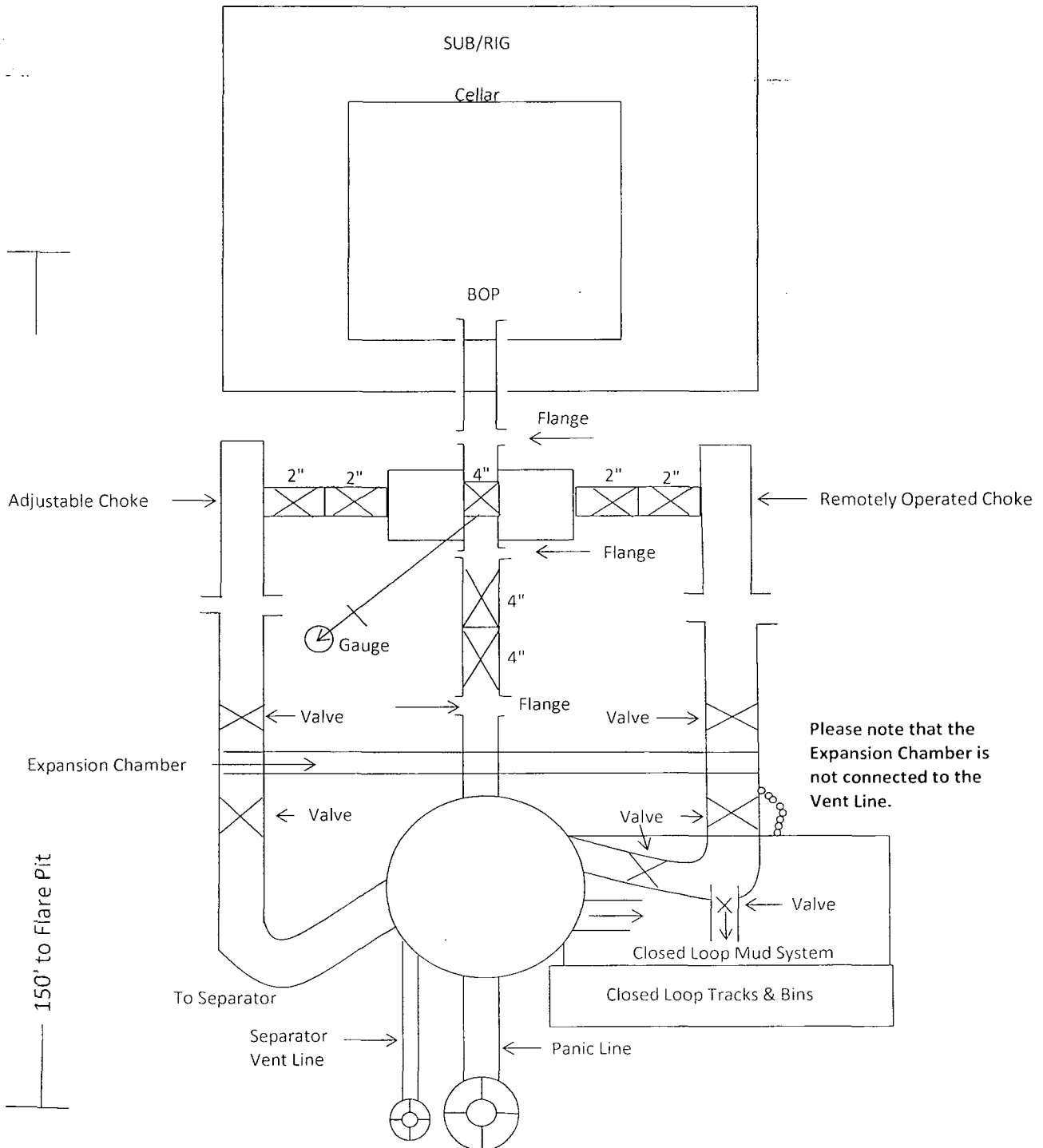
3,000 psi BOP Schematic



2M Choke Manifold Equipment



3M Choke Manifold Equipment



BTA Oil Producers, LLC

Rig Plat & Closed Loop Equipment Diagram

Well pad will be 340' X 340'
with cellar in center of pad

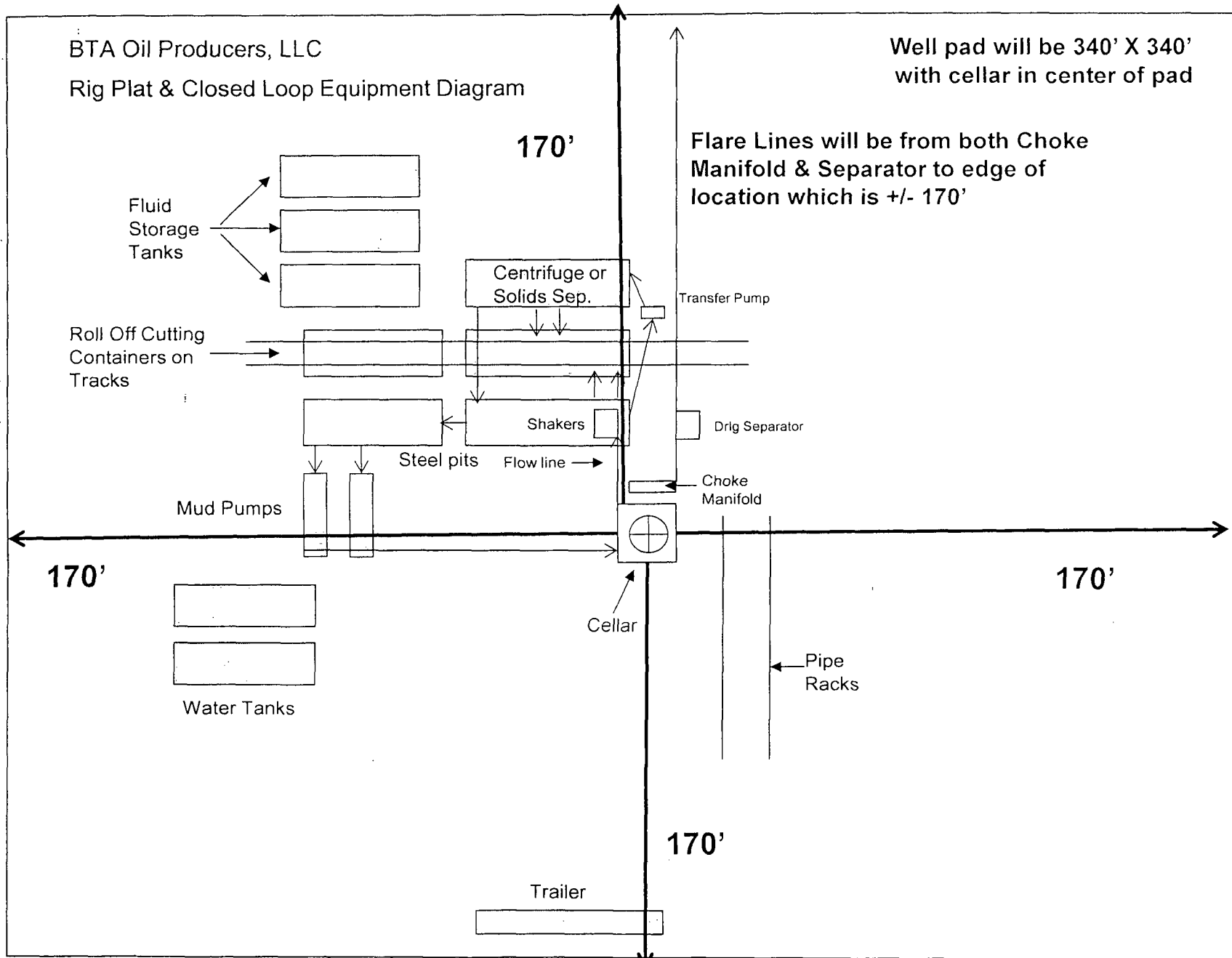


Exhibit I

"I further certify that COG will comply with Rule 19.15.17 NMAC by using a Closed Loop System."

Well pad will be 340' X 340'
with cellar in center of pad

COG Operating LLC
H₂S Equipment Schematic
Terrain: Shinnery sand hills.

Secondary egress.

